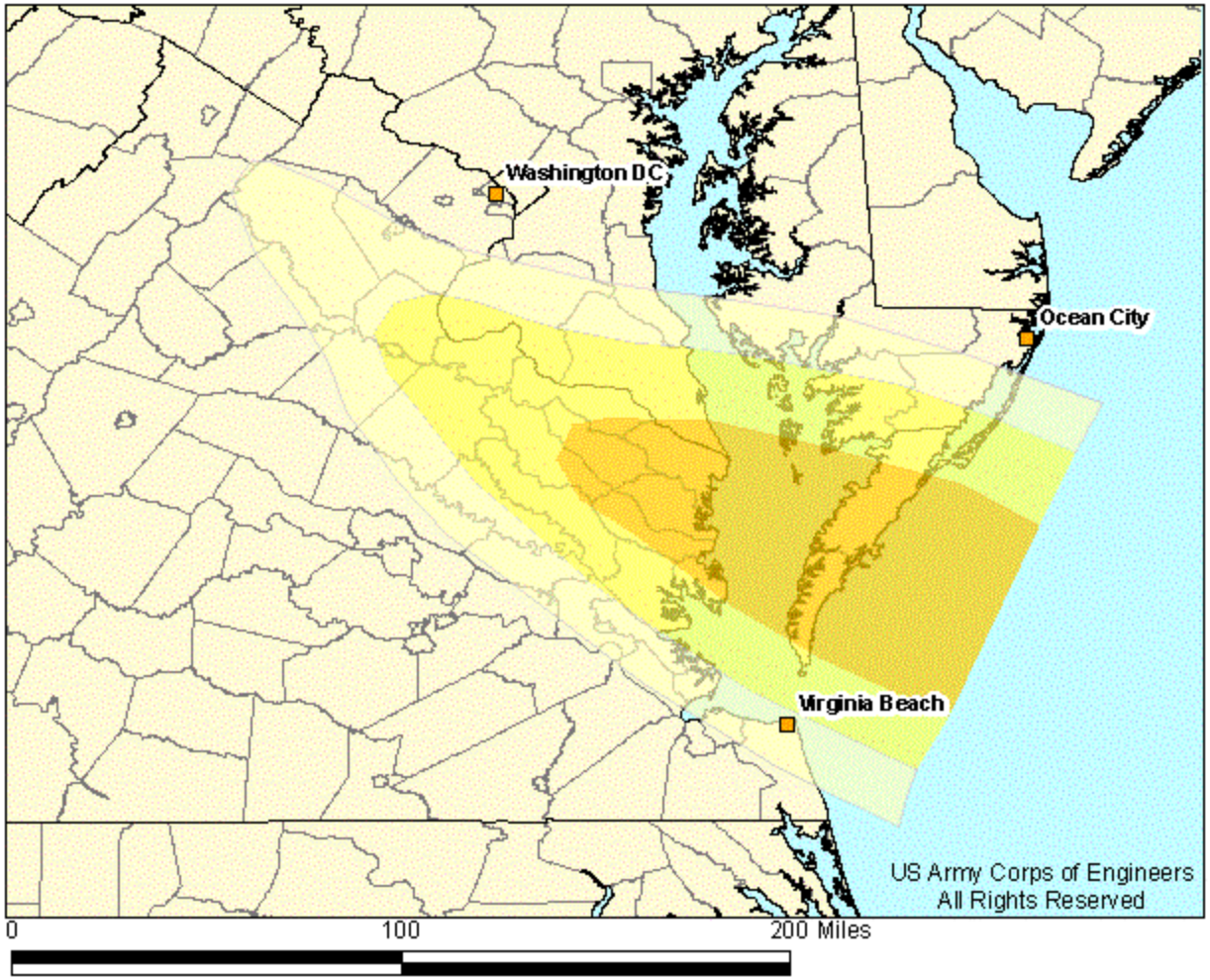
Hurricane NoName Projected Damage Areas

US Army Corps of Engineers

Landfall Expected In About 36 Hours

For Planning Purposes Only!



Pre Landfall Projected Damage Areas

This model is based on a Category 2 storm making landfall on coastal Virginia.

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

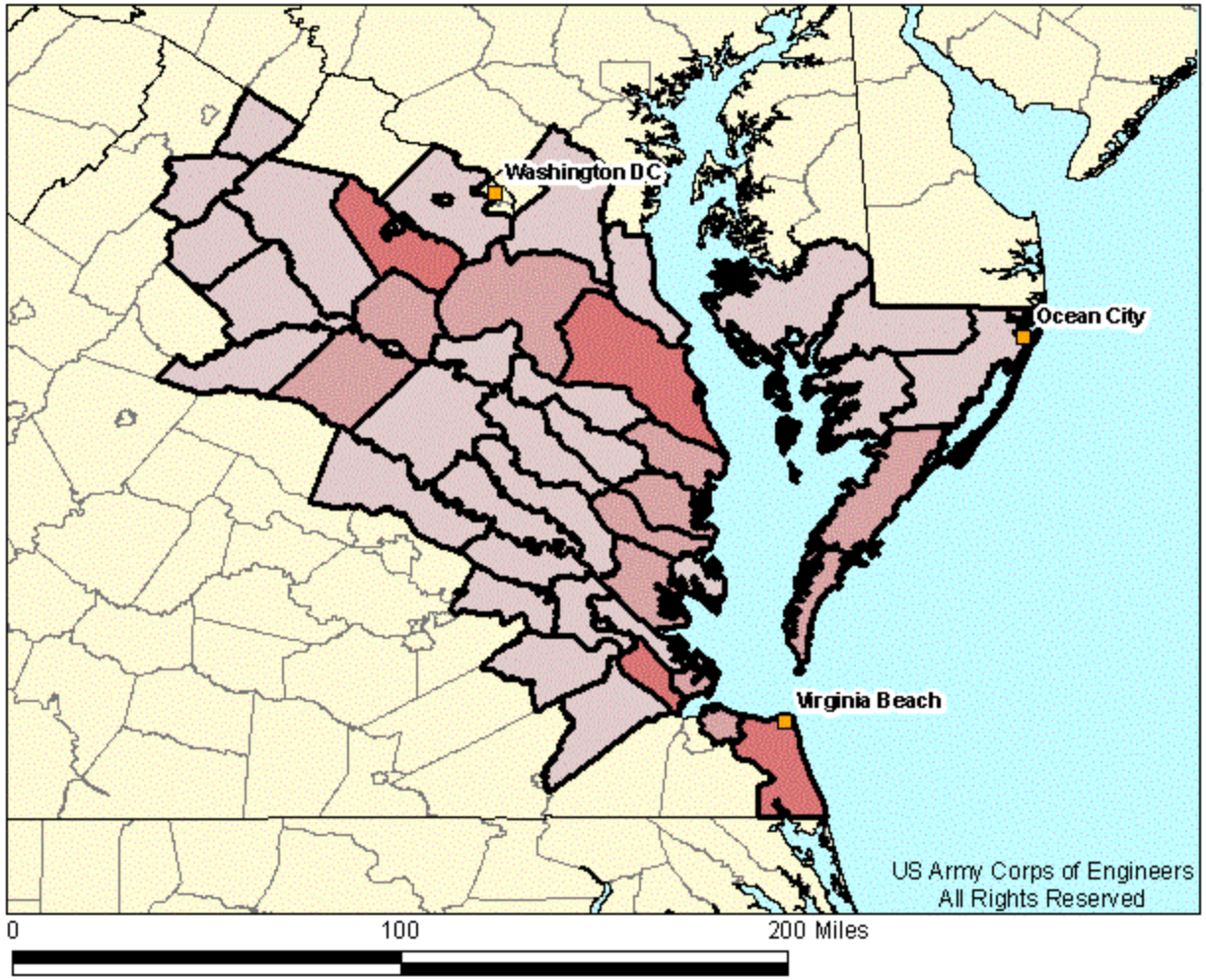
Hurricane NoName Projected Damage Areas	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 1 of 15

US Army Corps of Engineers

Hurricane NoName Debris Model

Landfall Expected In About **36** Hours

For Planning Purposes Only!



Pre Landfall Debris Model Results

Virginia - 3,675,000 Yards
Maryland - 684,000 Yards

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Debris Model	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 2 of 15

US Army Corps of Engineers

Hurricane NoName Debris Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Maryland		Calvert County	62,000
		Charles County	121,000
		Dorchester County	5,000
		Prince George's County	< 1,000
		Somerset County	49,000
		St. Mary's County	375,000
		Wicomico County	38,000
		Worcester County	34,000
Maryland	684,000		
Virginia		Accomack County	241,000
		Caroline County	57,000
		Charles City County	< 1,000
		Clarke County	< 1,000
		Culpeper County	12,000
		Essex County	67,000
		Fairfax County	4,000
		Fauquier County	77,000
		Fredericksburg city	63,000
		Gloucester County	114,000
		Hampton city	195,000
		Hanover County	23,000
		Isle of Wight County	< 1,000
		James City County	90,000
		King and Queen County	25,000
		King George County	57,000
		King William County	32,000
		Lancaster County	140,000
		Manassas city	40,000
		Manassas Park city	< 1,000
		Mathews County	67,000

State	Yards per State	County	Yards per County
Virginia		Middlesex County	113,000
(continued)		New Kent County	22,000
		Newport News city	303,000
		Norfolk city	230,000
		Northampton County	102,000
		Northumberland County	139,000
		Orange County	4,000
		Poquoson city	15,000
		Prince William County	375,000
		Rappahannock County	< 1,000
		Richmond County	66,000
		Spotsylvania County	150,000
		Stafford County	235,000
		Surry County	< 1,000
		Virginia Beach city	459,000
		Warren County	2,000
		Westmoreland County	68,000
		Williamsburg city	14,000
		York County	74,000
Virginia	3,675,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane NoName Debris Model

Generated By:
Siemsen, LRL 0600 EDT 09/22/2009

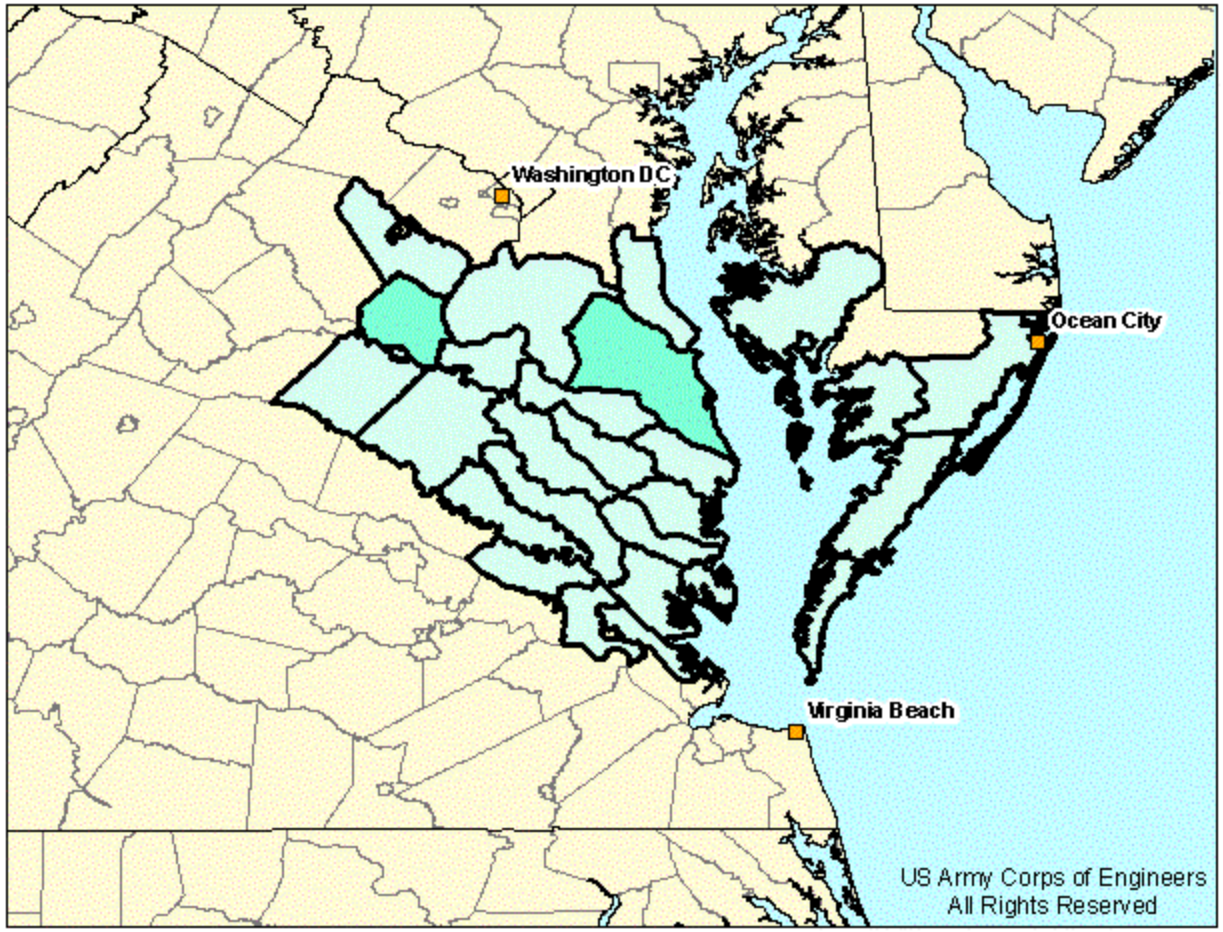
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane NoName Commodities Model

Landfall Expected In About **36** Hours

For Planning Purposes Only!



Pre Landfall Water Model Results

Day One / Day Two / Day Three
Virginia – 8/16/32 Truckloads
Maryland – 3/6/11 Truckloads

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC ***(0500 EDT 09/22/2009)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Commodities Model	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 15

US Army Corps of Engineers

Hurricane NoName Commodities Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Maryland		Calvert County	1
		Charles County	1
		Dorchester County	1
		Somerset County	1
		St. Mary's County	6
		Worcester County	1
Maryland	11		
Virginia		Accomack County	2
		Caroline County	1
		Essex County	1
		Fredericksburg city	2
		Gloucester County	3
		James City County	1
		King and Queen County	1
		King George County	2
		King William County	1
		Lancaster County	1
		Mathews County	1
		Middlesex County	1
		New Kent County	1
		Northampton County	1
		Northumberland County	1
		Poquoson city	1
		Prince William County	1
		Richmond County	1
		Spotsylvania County	2
		Stafford County	5
		Westmoreland County	1
		York County	1
Virginia	32		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Commodities Model

Generated By:
Siemsen, LRL 0600 EDT 09/22/2009

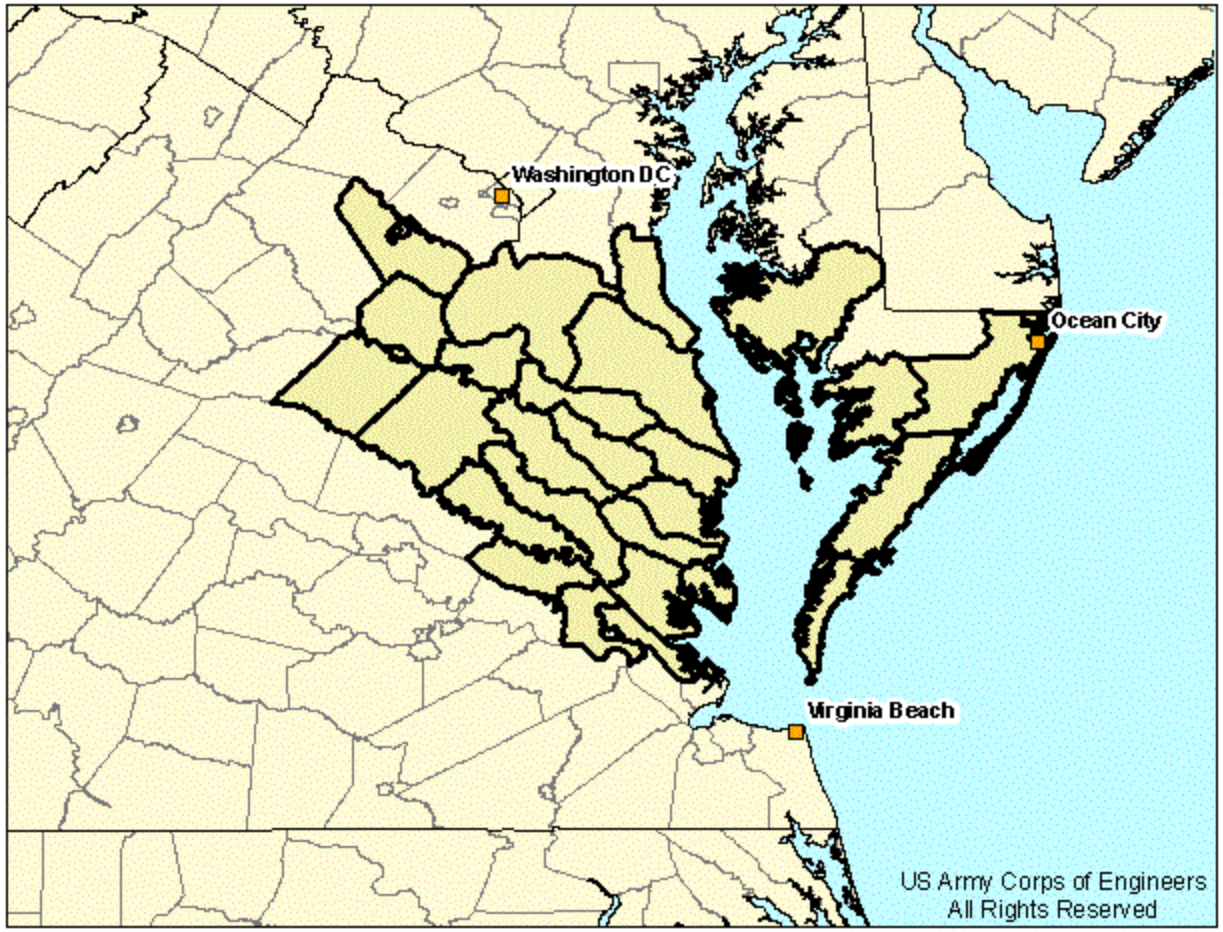
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane NoName Temporary Roofing Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!



Pre Landfall Temporary Roofing Model Results

Virginia - 4,200
Maryland - 1,300

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast. Temporary roofing is based on 2% in CAT 1 and 4% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Roofing Model	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 15

US Army Corps of Engineers

Hurricane NoName Temporary Roofing Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Maryland		Calvert County	< 100
		Charles County	200
		Dorchester County	< 100
		Somerset County	200
		St. Mary's County	900
		Worcester County	< 100
Maryland	1,300		
Virginia		Accomack County	500
		Caroline County	< 100
		Essex County	200
		Fredericksburg city	200
		Gloucester County	400
		James City County	< 100
		King and Queen County	< 100
		King George County	200
		King William County	< 100
		Lancaster County	300
		Mathews County	200
		Middlesex County	200
		New Kent County	< 100
		Northampton County	300
		Northumberland County	300
		Poquoson city	< 100
		Prince William County	< 100
		Richmond County	200
		Spotsylvania County	300
		Stafford County	700
		Westmoreland County	200
		York County	< 100
Virginia	4,200		

Temporary roofing is based on 2% in CAT 1 and 4% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane NoName Roofing Model

Generated By:
Siemsen, LRL 0600 EDT 09/22/2009

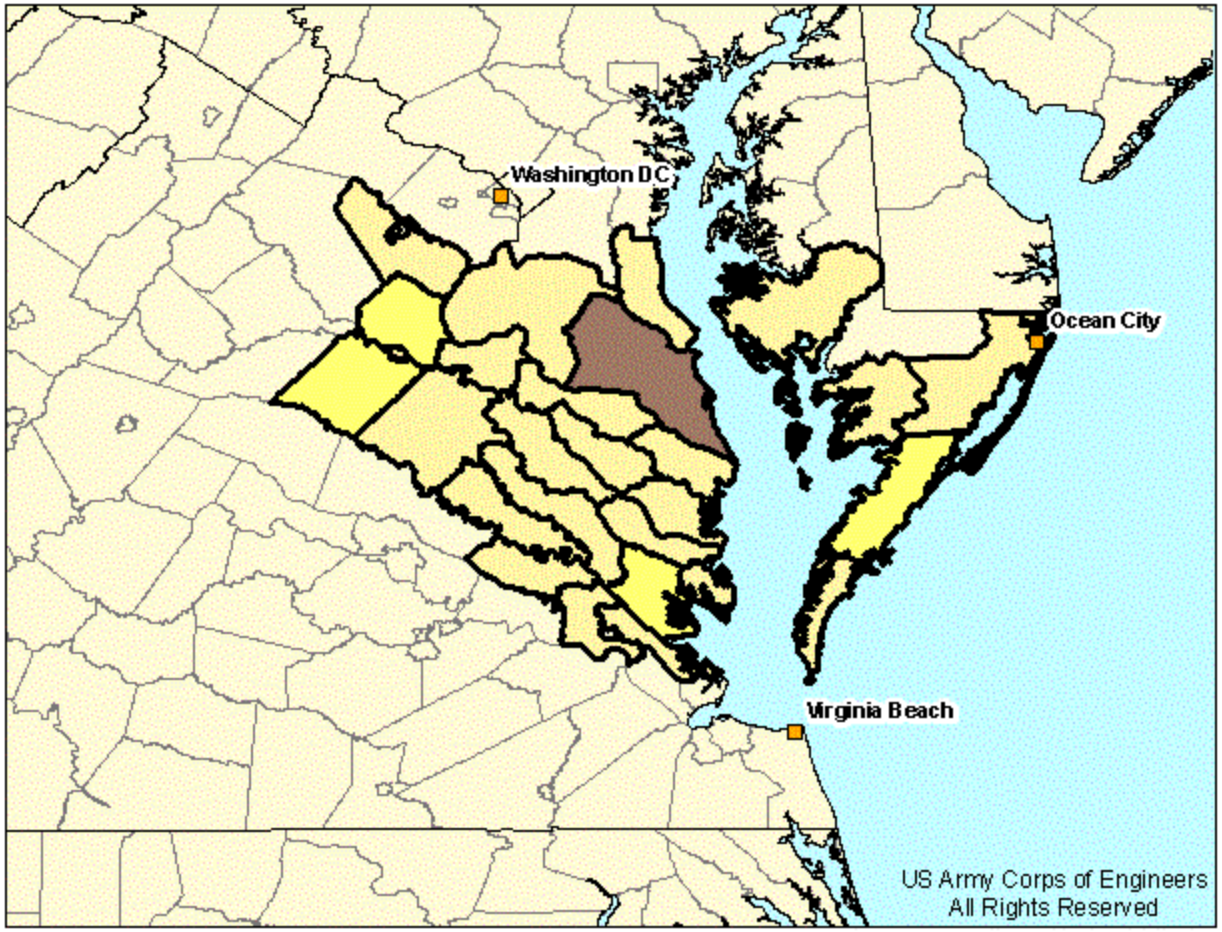
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane NoName Population Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!



Pre Landfall Population Model Results

Virginia - 392,000
Maryland - 156,000

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2008 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Population Model	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 8 of 15

US Army Corps of Engineers

Hurricane NoName Population Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Maryland		Calvert County	2,000
		Charles County	16,000
		Dorchester County	< 1,000
		Somerset County	18,000
		St. Mary's County	112,000
		Worcester County	8,000
Maryland	156,000		
Virginia		Accomack County	38,000
		Caroline County	9,000
		Essex County	12,000
		Fredericksburg city	23,000
		Gloucester County	43,000
		James City County	2,000
		King and Queen County	7,000
		King George County	24,000
		King William County	9,000
		Lancaster County	15,000
		Mathews County	10,000
		Middlesex County	13,000
		New Kent County	2,000
		Northampton County	14,000
		Northumberland County	14,000
		Poquoson city	< 1,000
		Prince William County	< 1,000
		Richmond County	10,000
		Spotsylvania County	31,000
		Stafford County	95,000
		Westmoreland County	19,000
		York County	2,000
Virginia	392,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2008 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane NoName Population Model

Generated By:
Siemsen, LRL 0600 EDT 09/22/2009

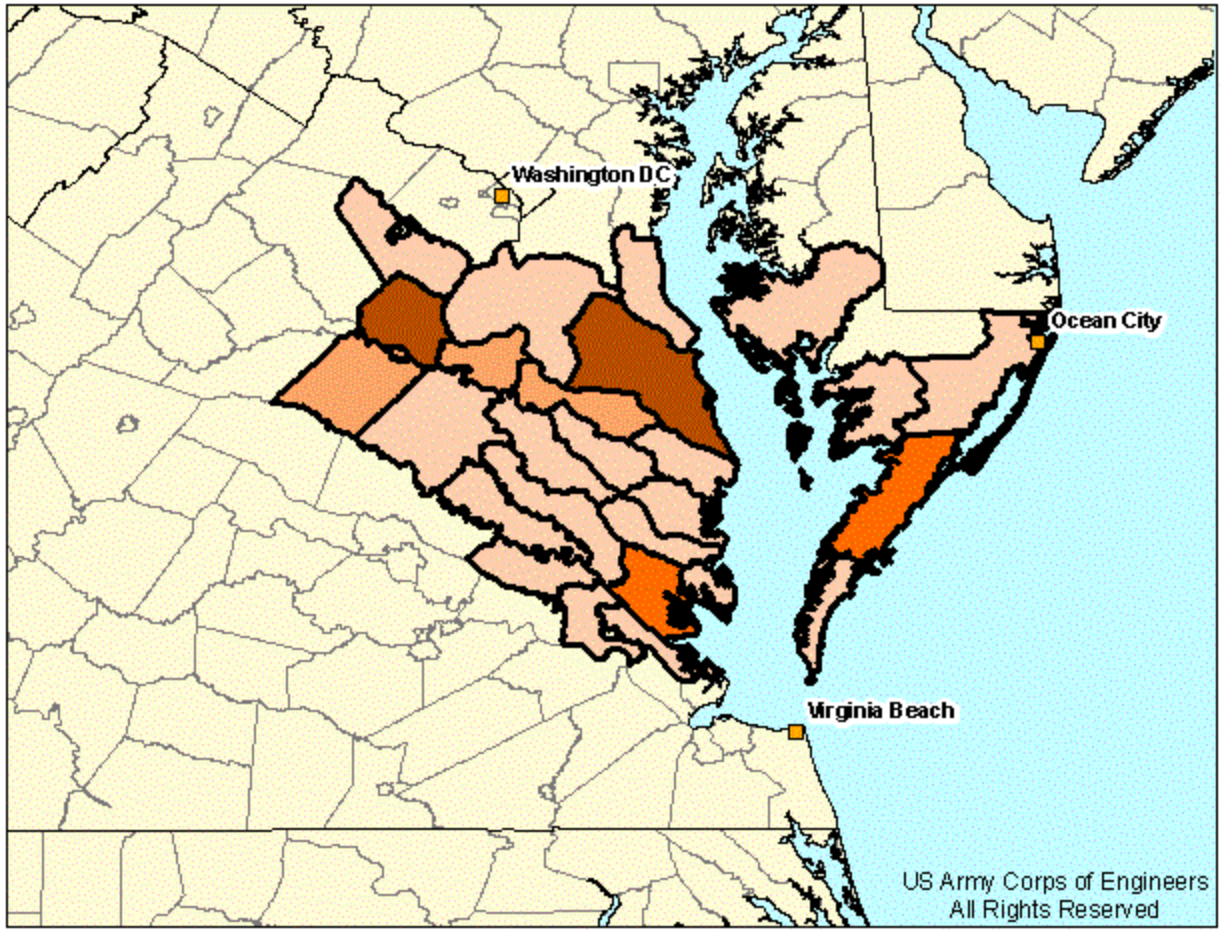
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane NoName Households Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!



Pre Landfall Households Model Results

Virginia - 153,000
Maryland - 56,000

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2008 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Households Model	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 15

US Army Corps of Engineers

Hurricane NoName Households Model

Landfall Expected In About 36 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Maryland		Calvert County	< 1,000
		Charles County	6,000
		Dorchester County	< 1,000
		Somerset County	6,000
		St. Mary's County	41,000
		Worcester County	3,000
Maryland	56,000		
Virginia		Accomack County	16,000
		Caroline County	4,000
		Essex County	5,000
		Fredericksburg city	10,000
		Gloucester County	17,000
		James City County	< 1,000
		King and Queen County	3,000
		King George County	9,000
		King William County	4,000
		Lancaster County	7,000
		Mathews County	4,000
		Middlesex County	6,000
		New Kent County	< 1,000
		Northampton County	6,000
		Northumberland County	6,000
		Poquoson city	< 1,000
		Prince William County	< 1,000
		Richmond County	4,000
		Spotsylvania County	12,000
		Stafford County	32,000
		Westmoreland County	8,000
		York County	< 1,000
Virginia	153,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2008 values.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane NoName Households Model

Generated By:
Siemsen, LRL 0600 EDT 09/22/2009

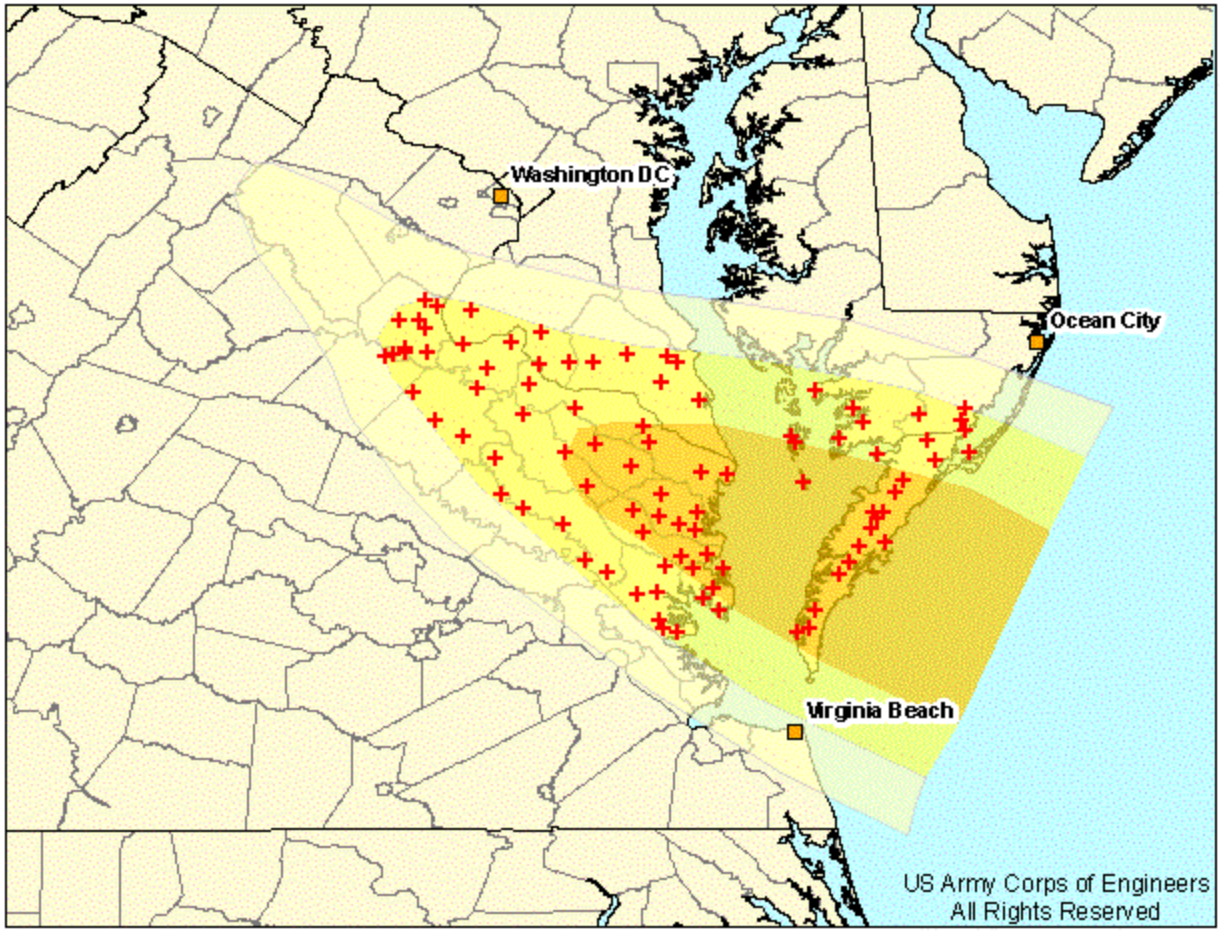
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane NoName Fire Stations

Landfall Expected In About 36 Hours

For Planning Purposes Only!



0 100 200 Miles

+ Fire Stations

Most Probable Landfall Fire Stations Inside Hurricane Force Winds

Virginia - 74
Maryland - 18

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

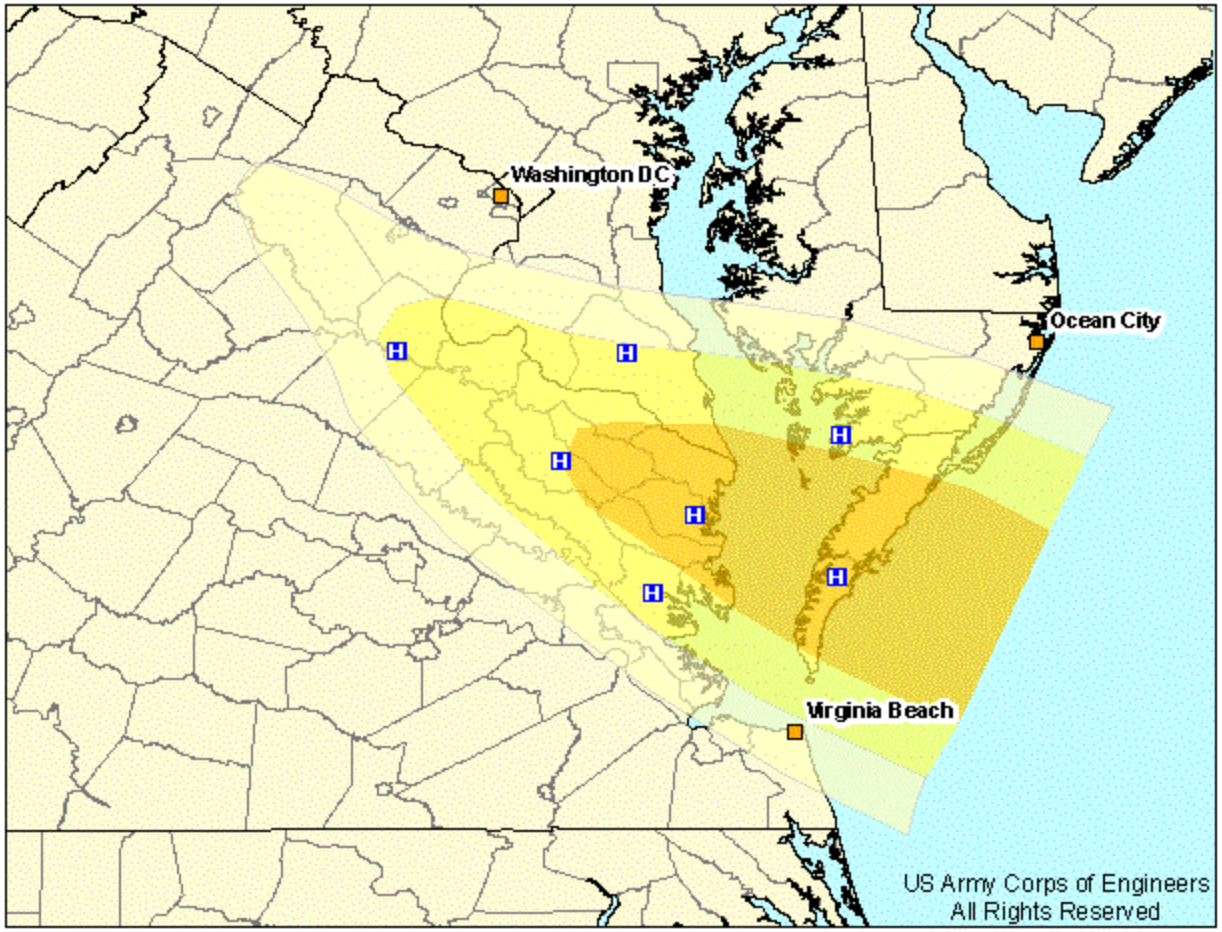
Hurricane NoName Fire Stations	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 12 of 15

US Army Corps of Engineers

Hurricane NoName Hospitals

Landfall Expected In About 36 Hours

For Planning Purposes Only!



0 100 200 Miles

H Hospitals

Most Probable Landfall Hospitals Inside Hurricane Force Winds

Virginia - 6
Maryland - 2

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

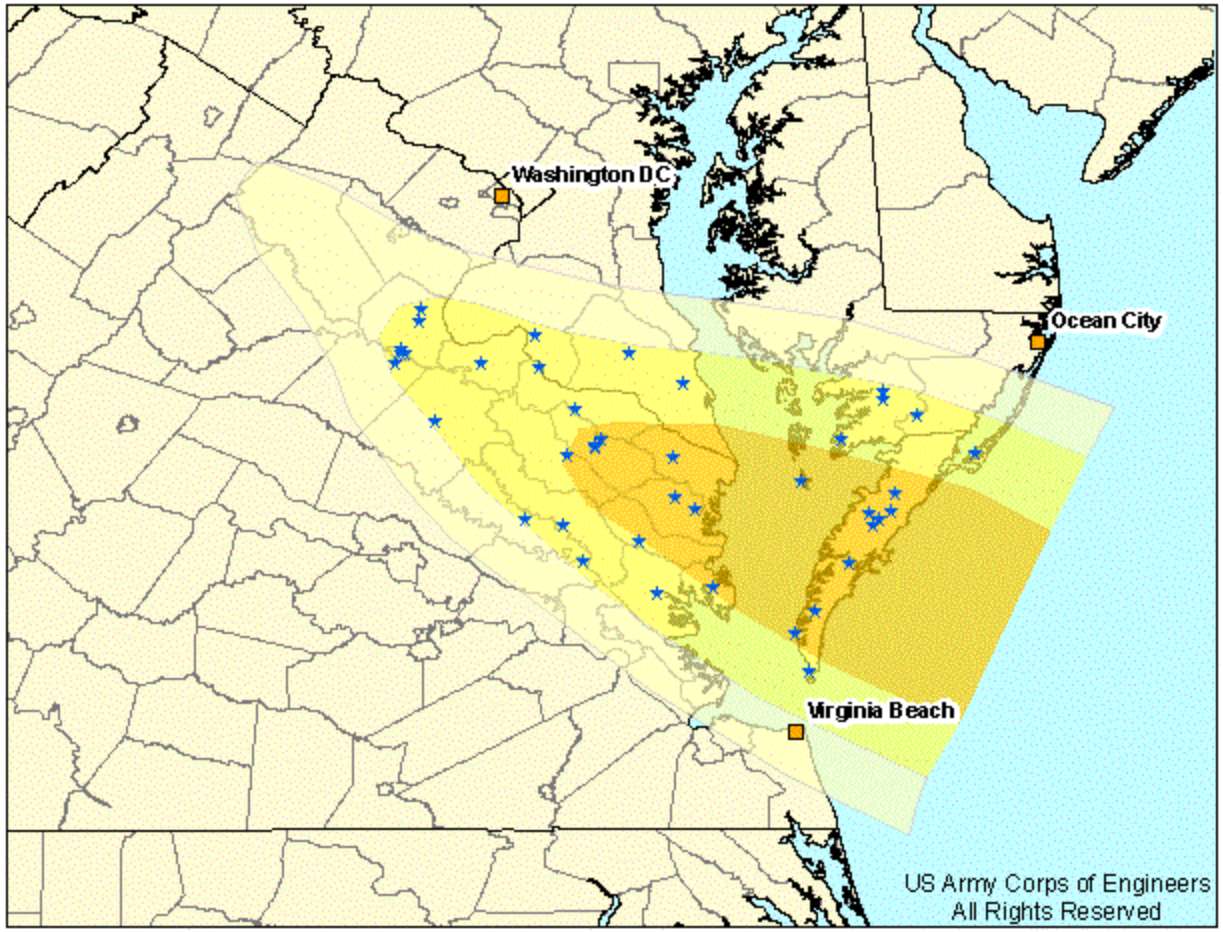
Hurricane NoName Hospitals	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 13 of 15

US Army Corps of Engineers

Hurricane NoName Law Enforcement

Landfall Expected In About **36** Hours

For Planning Purposes Only!



0 100 200 Miles

★ Law Enforcement

Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

Virginia - 38
Maryland - 8

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast.

The number of law enforcement included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

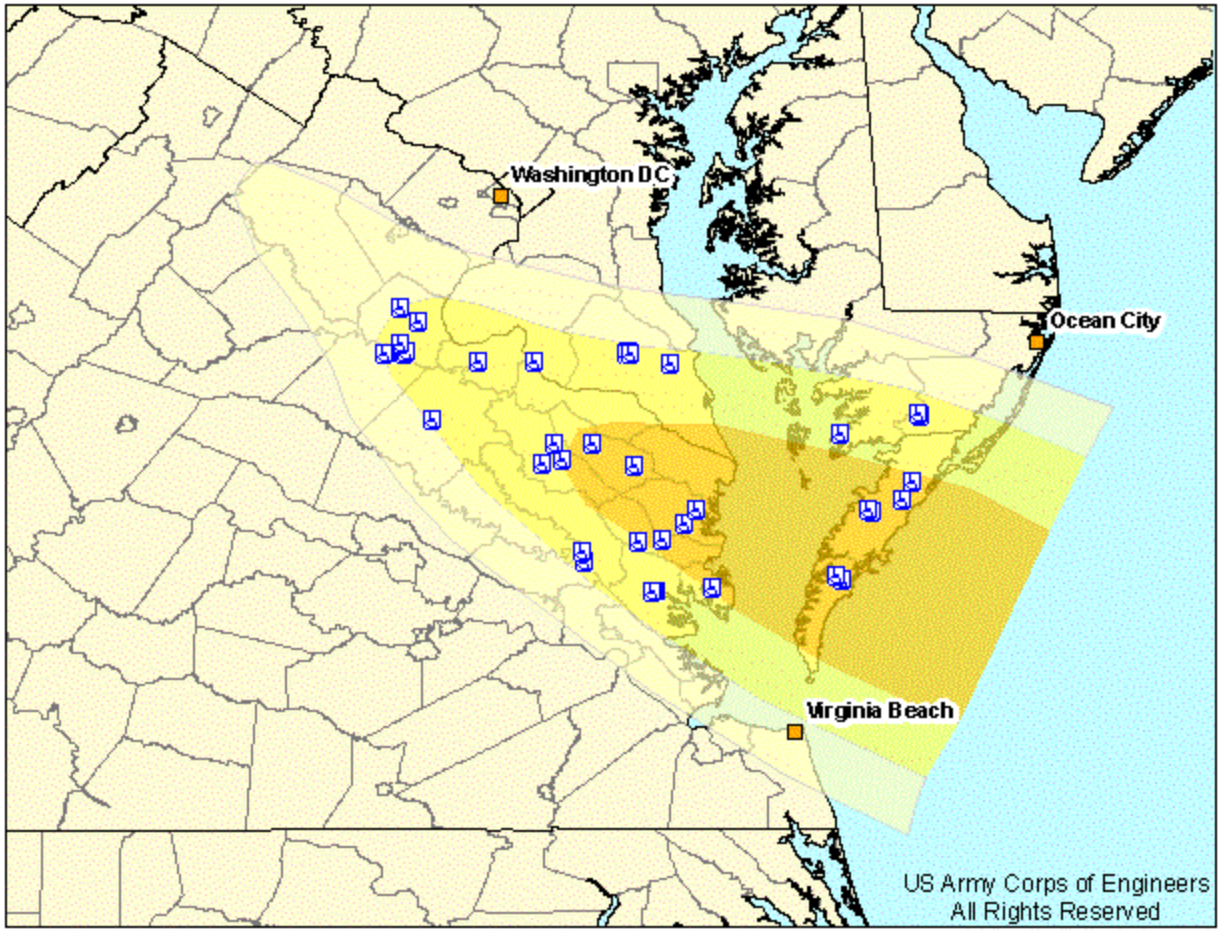
Hurricane NoName Law Enforcement	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 14 of 15

US Army Corps of Engineers

Hurricane NoName Nursing Homes

Landfall Expected In About 36 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

Virginia - 36
Maryland - 7

Model results per County on following page

This model is based on a Category 2 storm making landfall on coastal Virginia.

Nursing Homes

Information provided on this page displays a Category 2 storm making landfall on coastal Virginia. These projections are based on information from the NHC (0500 EDT 09/22/2009) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2008).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane NoName Nursing Homes	
Generated By: Siemsen, LRL 0600 EDT 09/22/2009	
Sources: HURREVAC LRL-DEBRIS	Page 15 of 15